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### FACSIMILE COVER SHEET

**Examiner:** Office of Initial Patent Examination  
Customer Service Center

**Date:** August 17, 2004

**Client Code:** 3646

**Facsimile No.:** 703-746-9195

**From:** Kraig K. Anderson, Ph.D. *KKA*

**Subject:** Request for Corrected Filing Receipt

**Docket No.:** 3646.1001-013

**Applicants:** James A. Shayman

**Application No.:** 10/824,708

**Filing Date:** April 15, 2004

Number of pages including this cover sheet: 6

Please confirm receipt of facsimile: Yes X No     

**Sir:**

Attached please find a Request for Corrected Filing Receipt for Utility Application and related papers.

Respectfully submitted,


Kraig K. Anderson, Ph.D.

@PFDesktop\ODMA\MHODMA\HBSR05\jManager\_493361;1

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## IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant: James A. Shayman  
Application No.: 10/824,708 Group: 1621  
Filed: April 15, 2004 Examiner: Not yet assigned  
Confirmation No.: 7244  
For: AMINO CERAMIDE-LIKE COMPOUNDS AND  
THERAPEUTIC METHODS OF USE

<b>CERTIFICATE OF MAILING OR TRANSMISSION</b>	
I hereby certify that this correspondence is being deposited with the United States Postal Service with sufficient postage as First Class Mail in an envelope addressed to Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450, or is being facsimile transmitted to the United States Patent and Trademark Office on:	
August 17 2004	
Date	Signature
Meredith Murray	
Typed or printed name of person signing certificate	

**REQUEST FOR CORRECTED FILING RECEIPT**  
**FOR UTILITY APPLICATION**

Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

Sir:

We hereby request that the following items of information be corrected in the Filing Receipt for the subject application received in this office on June 30, 2004.

The errors and corrections appear below.

**The title is incorrect on the Filing Receipt.**

Enclosed are copies of the Filing Receipt with changes noted, and a copy of the first page of the Specification.


10/824,708

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Pursuant to instructions in the February 29, 2000 O.G., we hereby request that the errors which are identified above be corrected in the captioned application to which this request for correction is directed. It is understood that the Patent Office will issue an automatically-generated, corrected Filing Receipt in this and, if applicable, any other affected applications.

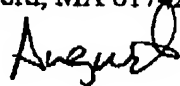
Respectfully submitted,

HAMILTON, BROOK, SMITH & REYNOLDS, P.C.

By   
Kraig K. Anderson  
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Concord, MA 01742-9133

Date:

 17, 2004



## UNITED STATES PATENT AND TRADEMARK OFFICE

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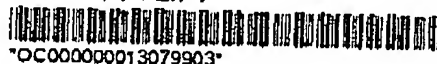
APPL NO	FILING OR 371 (e) DATE	ART UNIT	FIL FEE REC'D	ATTY DOCKET NO	DRAWINGS	TOT CLMS	IND CLMS
10/824,708	04/15/2004	1621	0.00	3646.1001-013	3	31	3

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CONFIRMATION NO. 7244

## FILING RECEIPT



\*0C00000013079903\*

Date Mailed: 06/28/2004

Receipt is acknowledged of this regular Patent Application. It will be considered in its order and you will be notified as to the results of the examination. Be sure to provide the U.S. APPLICATION NUMBER, FILING DATE, NAME OF APPLICANT, and TITLE OF INVENTION when inquiring about this application. Fees transmitted by check or draft are subject to collection. Please verify the accuracy of the data presented on this receipt. If an error is noted on this Filing Receipt, please write to the Office of Initial Patent Examination's Filing Receipt Corrections, facsimile number 703-746-9195. Please provide a copy of this Filing Receipt with the changes noted thereon. If you received a "Notice to File Missing Parts" for this application, please submit any corrections to this Filing Receipt with your reply to the Notice. When the USPTO processes the reply to the Notice, the USPTO will generate another Filing Receipt incorporating the requested corrections (if appropriate).

## Applicant(s)

James A. Shayman, Ann Arbor, MI;

## Assignment For Published Patent Application

The Regents of the University of Michigan, Ann Arbor, MI;

## Domestic Priority data as claimed by applicant

This application is a CON of 10/134,314 04/29/2002 ABN  
 which is a CIP of 10/044,869 01/10/2002  
 which claims benefit of 60/260,948 01/10/2001  
 and claims benefit of 60/262,196 01/17/2001

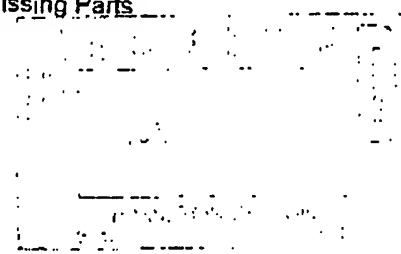
## Foreign Applications

If Required, Foreign Filing License Granted: 06/25/2004

Projected Publication Date: To Be Determined - pending completion of Missing Parts

Non-Publication Request: No

Early Publication Request: No



**Title**

Amino ceramide-like compounds and therapeutic methods of use ~~sponsorship~~

**Preliminary Class**

564

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Title 37, Code of Federal Regulations, 5.11 & 5.15**

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Date: 4-15-04 Express Mail Label No. EV 21495728745

Inventor: James A. Shayman  
Attorney's Docket No.: 3646.1001-013

**AMINO CERAMIDE-LIKE COMPOUNDS  
AND THERAPEUTIC METHODS OF USE  
SPONSORSHIP**

Work on this invention was sponsored in part by National Institutes of Health Grant  
5 R01 DK55823. The Government may have certain rights in the invention.

**RELATED APPLICATIONS**

This application is a continuation of U.S. Application No. 10/134,314, filed April 29,  
2002, which is a continuation-in-part application of U.S. Serial No. 10/044,869 filed January  
10, 2002, which application claimed priority to U.S. Provisional Application Serial No.  
10 60/260,948 filed on January 10, 2001 and 60/262,196 filed on January 17, 2001. The entire  
text of each of the aforementioned applications is specifically incorporated herein by reference.

**FIELD OF THE INVENTION**

The present invention relates generally to ceramide-like compounds and, more  
particularly, to prodrugs of ceramide-like compounds that inhibit glucosylceramide formation.

**BACKGROUND OF THE INVENTION**

15 Hundreds of glycosphingolipids (GSLs) are derived from glucosylceramide (GlcCer),  
which is enzymatically formed from ceramide and UDP-glucose. The enzyme involved in  
GlcCer formation is UDP-glucose-N-acylsphingosine glucosyltransferase (GlcCer synthase).  
The rate of GlcCer formation under physiological conditions may depend on the tissue level of  
20 UDP-glucose, which in turn depends on the level of glucose in a particular tissue (Zador, I.Z. *et al.*,  
"A Role for Glycosphingolipid Accumulation in the Renal Hypertrophy of Streptozotocin-  
Induced Diabetes Mellitus," *J. Clin. Invest.* 91:797-803 (1993)). In vitro assays based on  
endogenous ceramide yield lower synthetic rates than mixtures containing added ceramide,  
suggesting that tissue levels of ceramide are also normally rate-limiting (Brenkert, A. *et al.*,  
25 "Synthesis of Galactosyl Ceramide and Glucosyl Ceramide by Rat Brain: Assay Procedures and  
Changes with Age," *Brain Res.* 36:183-193 (1972)).

It has been found that the level of GSLs controls a variety of cell functions, such as  
growth, differentiation, adhesion between cells or between cells and matrix